

## ABSTRACT

A data processing system includes a plurality of chain objects each of which is given a unique ID, a chain manager arranged so as to correspond to each chain  
5 object for performing control of a process involving the chain objects, a chain directory for storing service information executable by each chain object, and a root chain manager for performing control of service execution by performing an ID acquisition process for each chain object, querying the chain directory about an executable data processing service involving a chain object having the acquired ID,  
10 and further circulating chain tokens among chain managers corresponding to the chain objects participating in the service based on a reply to the query, whereby various configurations for providing and receiving services are implemented.